Tripp Lite
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SmartOnline 100-127V 2.2kVA 1.8kW On-Line Double-Conversion UPS, Extended Run, SNMP, Webcard, 2U Rack/Tower, LCD display, USB, DB9 Serial

MODEL NUMBER: **SU2200RTXLCD2U**

Description

Tripp Lite Smart Online UPS systems offer high performance power protection ideal for critical server and network equipment in datacenters, computer rooms and network closets. Online, double-conversion Uninterruptible Power Supply (UPS) maintains perfectly regulated output power by continuously converting raw AC input to DC, then re-converting output back to AC. Fully regulated sine wave AC output with +/-2% voltage regulation powers network equipment continuously, even during severe brownouts and overvoltages, all without depleting UPS battery reserves. Maintains battery-derived AC output during power failures with zero transfer time. Extended runtime options available. Interactive LCD interface reports UPS operating mode, detailed UPS and site-power data, plus enables a variety of UPS setup and configuration options. Highly efficient operation in optional economy mode saves BTU heat output and energy costs. Network management interfaces support communications via USB, RS-232, contact-closure and optional SNMPWEBCARD network interface. Built-in DB9 port offers both enhanced RS-232 data and basic contact closure monitoring ability. HID-compliant USB interface enables integration with built-in power management and auto shutdown features of Windows and Mac OS X. Includes PowerAlert monitoring software and complete cabling. Emergency Power Off (EPO) interface. LED display reports UPS operating mode, line power availability, battery mode operation, inverter operation, ECO mode status and output power availability. LED/LCD display panel easily rotates for viewing in rackmount or tower configurations. Audible alarm with push-button momentary alarm-cancel and silent-mode LCD configuration options. Programmable self-test. Fault-tolerant auto-bypass mode. Battery independent restart. Field-replaceable, hot-swappable internal batteries and external battery packs.

Features

- Tripp Lite SU2200RTXLCD2U 2200VA / 2.2kVA / 1800W on-line, double-conversion 2U rack / tower UPS
- Selectable 100/110/120/127V output (120V factory preset)
- NEMA 5-20P input, 6 NEMA 5-15/20R and 1 L5-20R outlets

Highlights

- 2200VA / 2.2kVA / 1800W on-line double-conversion 2U rack / tower UPS
- 100/110/120/127V 50/60Hz output; High efficiency economy mode option
- Interactive LCD with 9 selectable screens of UPS and site power data
- Expandable runtime, Hot-swap batteries, 19 in / 48.3cm depth
- USB, RS232 & EPO ports, support for SNMP/WEB card option
- 2 independently switched load banks
- NEMA 5-20P input; 6 NEMA 5-15/20R & 1 L5-20R outlets
- **This product is ENERGY STAR qualified for its ability to save customers money while helping to protect the environment**

Applications

- Distributed Server Rooms
- Network Closets
- Small Business Networks
- Voice over IP (VoIP) Phone Systems

Package Includes

- SU2200RTXLCD2U UPS System
- PowerAlert Software with USB, Serial & EPO cabling
- 4 post rackmount installation kit
- Instruction manual

- Two switched 3-outlet load banks support remote reboot or programmable load shedding options
- Supports 2% output voltage regulation and zero transfer time in double conversion mode
- Economy mode option offers enhanced efficiency, reduced power consumption and lower BTU emissions
- 12 minutes runtime at 50% load (900W) and 4 minutes at 100% load (1800W) with internal batteries
- BP48V24-2U (limit 1), BP48V60RT-3U (multi-pack compatible) and BP48V27-2US (multi-pack compatible) external battery packs available (some configurations require Tripp LiteExternal Battery Configuration Software)
- LCD interface reports operating mode plus 9 selectable screens of UPS data (Load % & kW, Load % & kVA, Power factor, Input volts & Hz, Output volts & Hz, Battery volts and charge %, Minutes runtime, Capacity remaining, Kw/hr. consumption)
- LCD interface also supports 16 screens of UPS configuration and setup options
- 4 post installation hardware included, Optional 2POSTRMKITWM enables 2 post rack installation, Optional 2-9USTAND enables tower placement
- Single line TEL / Network surge suppression
- Electronic bypass maintains utility output during a variety of UPS fault conditions
- Battery independent restart ensures automatic UPS power-up without user interaction after lengthy power outages, even when batteries are expired and require replacement
- Frequency regulation / conversion mode offers generator-compatible frequency correction or conversion of frequency from 50 to 60Hz or 60 to 50Hz
- USB, RS-232, contact-closure and optional SNMPWEBCARD accessory monitoring options
- HID-compliant USB interface enables integration with built-in power management and auto shutdown features of Windows and Mac OS X
- Included PowerAlert UPS monitoring software

Specifications

OUTPUT	
Output Capacity Details	ON LINE MODE: Maximum output capacity is reduced to 1620 watts at 115V nominal and 1440 watts at 100V nominal; FREQUENCY REGULATION / CONVERSION MODE: Maximum output ratings are reduced in frequency regulation / conversion mode (127/120V 1260 watts / 115V 1134 watts / 110V 1071 watts / 100V 1008 watts) OVERLOAD CAPACITY: Supports inverter operation up to 105% load continuously, 125% load for 3 minutes; 150% load for 30 seconds and >150% load for 0.5 seconds before switching to BYPASS (when bypass input voltage and frequency are WITHIN bypass limits) or SHUTDOWN (when bypass input voltage or frequency are OUTSIDE bypass limits)
Output Volt Amp Capacity (VA)	2200
Output kVA Capacity (kVA)	2.2
Output Watt Capacity (Watts)	1800
Output kW Capacity (kW)	1.8
Power Factor	0.82
Crest Factor	3:1
Nominal Output Voltage(s) Supported	100V; 110V; 115V; 120V; 127V
Nominal Voltage Details	120V factory-default nominal voltage
Frequency Compatibility	50 / 60 Hz; Supports 50 to 60 Hz and 60 to 50 Hz conversion
Frequency Compatibility Details	ON LINE MODE: Output frequency is automatically configured to match nominal input frequency on startup; Output matches input frequency when +/-5Hz of nominal; Output is regulated to +/-0.05Hz when input frequency exceeds +/-5Hz of nominal. UPS switches to battery mode when input frequency is below 40Hz or above 70Hz. FREQUENCY REGULATION / CONVERSION MODE: Output is regulated to +/-0.05Hz of selected output frequency input is 40 to 70Hz; UPS switches to battery mode when input frequency is below 40Hz or above 70Hz. BATTERY MODE: Output is regulated to +/-0.05Hz.

Output Voltage Regulation (Line Mode)	+/- 2%
Output Voltage Regulation (Economy Line Mode)	+/- 10%
Output Voltage Regulation (Battery Mode)	+/- 3%
Output Receptacles	(6) 5-15/20R; (1) L5-20R
UPS Output Receptacles (Surge Suppression Only)	ON LINE MODE: Maximum output capacity is reduced to 1620 watts at 115V nominal and 1440 watts at 100V nominal; FREQUENCY REGULATION / CONVERSION MODE: Maximum output ratings are reduced in frequency regulation / conversion mode (127/120V 1260 watts / 115V 1134 watts / 110V 1071 watts / 100V 1008 watts) OVERLOAD CAPACITY: Supports inverter operation up to 105% load continuously, 125% load for 3 minutes; 150% load for 30 seconds and >150% load for 0.5 seconds before switching to BYPASS (when bypass input voltage and frequency are WITHIN bypass limits) or SHUTDOWN (when bypass input voltage or frequency are OUTSIDE bypass limits)
Load Management Receptacles	Two switchable three-outlet 5-15/20R load banks
Output AC Waveform (AC Mode)	Pure Sine wave
Output AC Waveform (Battery Mode)	Pure Sine wave
INPUT	
Rated input current (Maximum Load)	16A
Nominal Input Voltage(s) Supported	100V AC; 110V AC; 115V AC; 120V AC; 127V AC
Nominal Input Voltage Description	120V factory default
UPS Input Connection Type	5-20P
Input Circuit Breakers	30A
UPS Input Cord Length (ft.)	10
UPS Input Cord Length (m)	3
Recommended Electrical Service	20A 120V
Input Phase	Single-Phase
BATTERY	
Full Load Runtime (min.)	4 min. (1800w)
Half Load Runtime (min.)	12 min. (900w)
Expandable Battery Runtime	Extended runtime supported via optional external battery packs
External Battery Pack Compatibility	BP48V24-2U (limit 1); BP48V60RT-3U (multi-pack compatible); BP48V27-2US (multi-pack compatible)
Expandable Runtime Description	Some external battery configurations require the use of Tripp Lite's External Battery Configuration Software, see manual for details
DC System Voltage (VDC)	48
Battery Recharge Rate (Included Batteries)	Less than 3 hours recharge to 90% (typical, full load discharge)
Internal UPS Replacement Battery Cartridge	RBC94-2U

Battery Access	Front panel battery access
Battery Replacement Description	Hot-swappable, user replaceable batteries
Expandable Runtime	Yes
VOLTAGE REGULATION	
Voltage Regulation Description	Online, double-conversion power conditioning maintains 2% output voltage regulation during brownouts and overvoltages
Overvoltage Correction	Corrects overvoltages to 150V (0-100% load)
Undervoltage Correction	Corrects undervoltages to 100V at full load (90V at 100V nominal)
Severe Undervoltage Correction	Corrects brownouts to 70V (70% load) & 55V (33% load)
USER INTERFACE, ALERTS & CONTROLS	
Front Panel LCD Display	Front panel LCD information and configuration screen offers detailed UPS and site power status and operating data, plus configuration of voltage, frequency, operating mode, alarm function and a variety of additional options
Switches	2 switches control off/on power status and alarm-cancel operation; 2 additional scroll-down and scroll-up / select options enable LCD status viewing and configuration options
Alarm Cancel Operation	Power-fail alarm can be temporarily silenced using alarm-cancel switch; silent mode alarm configuration option available
Audible Alarm	Audible alarm indicates UPS startup, power-failure, low-battery, overload, UPS fault and remote shutdown conditions
Front Panel LCD	Yes
LED Indicators	7 front panel LEDs indicate line power availability, AC to DC conversion, battery mode operation, inverter mode, eco mode operation, bypass mode operation and AC output status
SURGE / NOISE SUPPRESSION	
UPS AC Suppression Joule Rating	570
UPS AC Suppression Response Time	Instantaneous
UPS Dataline Suppression	1 line TEL/DSL (1 in / 1 out); 10/100Base T Ethernet
EMI / RFI AC Noise Suppression	Yes
PHYSICAL	
Installation Form Factors Supported with Included Accessories	ON LINE MODE: Maximum output capacity is reduced to 1620 watts at 115V nominal and 1440 watts at 100V nominal; FREQUENCY REGULATION / CONVERSION MODE: Maximum output ratings are reduced in frequency regulation / conversion mode (127/120V 1260 watts / 115V 1134 watts / 110V 1071 watts / 100V 1008 watts) OVERLOAD CAPACITY: Supports inverter operation up to 105% load continuously, 125% load for 3 minutes; 150% load for 30 seconds and >150% load for 0.5 seconds before switching to BYPASS (when bypass input voltage and frequency are WITHIN bypass limits) or SHUTDOWN (when bypass input voltage or frequency are OUTSIDE bypass limits)
Included Mounting Accessory Description	Includes 4 post rackmount installation accessories
Installation Form Factors Supported with Optional Accessories	2 post rackmount (2POSTRMKITWM); Tower (2-9USTAND); Wallmount (2POSTRMKITWM)
Primary Form Factor	Rackmount

UPS Power Module Dimensions (hwd, in.)	3.5 x 17.5 x 19
UPS Power Module Dimensions (hwd, cm)	8.9 x 44.4 x 48.3
Rack Height (U Spaces)	2
UPS Power Module Weight (lbs.)	48.5
UPS Power Module Weight (kg)	22
Stepdown Transformer Dimensions (hwd / in.)	ON LINE MODE: Maximum output capacity is reduced to 1620 watts at 115V nominal and 1440 watts at 100V nominal; FREQUENCY REGULATION / CONVERSION MODE: Maximum output ratings are reduced in frequency regulation / conversion mode (127/120V 1260 watts / 115V 1134 watts / 110V 1071 watts / 100V 1008 watts) OVERLOAD CAPACITY: Supports inverter operation up to 105% load continuously, 125% load for 3 minutes; 150% load for 30 seconds and >150% load for 0.5 seconds before switching to BYPASS (when bypass input voltage and frequency are WITHIN bypass limits) or SHUTDOWN (when bypass input voltage or frequency are OUTSIDE bypass limits)
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Included Battery Pack Dimensions (hwd / in.)	ON LINE MODE: Maximum output capacity is reduced to 1620 watts at 115V nominal and 1440 watts at 100V nominal; FREQUENCY REGULATION / CONVERSION MODE: Maximum output ratings are reduced in frequency regulation / conversion mode (127/120V 1260 watts / 115V 1134 watts / 110V 1071 watts / 100V 1008 watts) OVERLOAD CAPACITY: Supports inverter operation up to 105% load continuously, 125% load for 3 minutes; 150% load for 30 seconds and >150% load for 0.5 seconds before switching to BYPASS (when bypass input voltage and frequency are WITHIN bypass limits) or SHUTDOWN (when bypass input voltage or frequency are OUTSIDE bypass limits)
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UPS Shipping Dimensions (hwd / in.)	9.5 x 20 x 24
UPS Shipping Dimensions (hwd / cm)	24.1 x 50.8 x 61
Shipping Weight (lbs.)	61.5
Shipping Weight (kg)	27.9
Cooling Method	Fan
UPS Housing Material	Steel
ENVIRONMENTAL	
Operating Temperature Range	+32 to +104 degrees Fahrenheit / 0 to +40 degrees Celsius
Storage Temperature Range	+5 to +122 degrees Fahrenheit / -15 to +50 degrees Celsius
Relative Humidity	0 to 95%, non-condensing
AC Mode BTU / Hr. (Full Load)	683

AC Economy Mode BTU / Hr. (Full Load)	390
Battery Mode BTU / Hr. (Full Load)	838
AC Economy Mode Efficiency Rating (100% Load)	94%
Operating Elevation (ft.)	0-3000m / 0-10,000 ft.
Audible Noise	57 dBA at 1m front side
Operating Elevation (m)	0-3000 m
COMMUNICATIONS	
Communications Interface	USB (HID enabled); DB9 Serial; Contact closure; EPO (emergency power off); Slot for SNMP/Web interface
Network Monitoring Port Description	Supports detailed monitoring of UPS and site power conditions; DB9 port supports RS232 and contact closure communications
PowerAlert Software	Included
Communications Cable	USB and DB9 cabling included
WatchDog Compatibility	Supports Watchdog application, OS and hard-reboot restart options for remote applications
LINE / BATTERY TRANSFER	
Transfer Time	Zero (0 milliseconds) in double-conversion mode; 4 milliseconds economy mode
Low Voltage Transfer to Battery Power (Setpoint)	100V at full load (90V full load at 100V nominal setting); 70V at 70% load; 55V at 33% load
High Voltage Transfer to Battery Power (Setpoint)	150
SPECIAL FEATURES	
Cold Start (Startup in Battery Mode During a Power Failure)	Cold-start operation supported
High Availability UPS Features	Automatic inverter bypass; Hot swappable batteries
Green Energy-Saving Features	High efficiency economy mode operation; Individually controllable load banks; Schedulable daily hours of economy mode operation
CERTIFICATIONS	
UPS Certifications	Tested to UL1778 (USA); Tested to CSA (Canada); Meets FCC Part 15 Category A (EMI); ROHS (Restriction of Hazardous Substances); ENERGY STAR Qualified
WARRANTY	
Product Warranty Period (Worldwide)	2-year limited warranty
Connected Equipment Insurance (U.S., Canada & Puerto Rico)	$250,000 Ultimate Lifetime Insurance

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